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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/963,244 | 09/26/2001 | Mark Alan Schultz | PU010200 | 8587 |

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EXAMINER
HINDI, NABIL Z

| | |
|------------------|--------------|
| ART UNIT 2627 | PAPER NUMBER |
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DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,244

Applicant(s)

SCHULTZ ET AL.

Examiner

NABIL Z. HINDI

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,12-21 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9,10,12-18,21 and 23-28 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 19, 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

In response to applicant's Board or Appeal filed on April 03, 2006. The following action is taken:

The Final rejection dated November 02, 2005 is withdrawn and a new action is hereby mailed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 9, 10, 12, 13, and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokumitsu et al (5513166).

The following interpretation is given to the claimed invention. The independent claims are broadly cited that read on the following:

- 1). The independent claims read on forming the Primary Defective List on the disk (PDL) wherein the disk is accessed before recording data in order to determine if any defects exist on the disk sectors. If a defect is found, then the sector is marked as defective and an alternative sector is assigned to record data.
- 2). The independent claims read on forming the Secondary Defective List (SDL) wherein prior to data being recorded on the disk (temporary defected dust, smudges, fingerprints) is examined, and if a defect is found, then it is registered in a SDL and an alternative sector is assigned to record the data.
- 3). The claim read on defrag or de-fragging wherein errors is detected prior to data

recording then allocates a new area for recording the data.

4). The independent claims read on pre-test recording data on the disk to determine a defective sectors prior to data recording.

The examiner interprets the limitations of the independent claims as pre-test recording data on the disk prior to data recording to determine a defective sector. The reference in fig 2 and explained in column 8 lines 36-50.on the disk prior to data recording and if a defective sector is found then data is allocated to an alternative sector meeting the claimed invention.

With respect to the limitation of claim 3 see column 8 lines 36-50.

With respect to the limitation of claim 5. The reference shows the allocation of defective sectors if the defective sectors is permanent (can not be corrected).

With respect to the limitation of claim 9. The reference shows the use of skipping by allocating a defective sector.

With respect to the limitation of claim 10. The reference read on examining any area on the disk (front end).

With respect to the limitation of claim 13. The reference shows a pre-testing on an accessed area (any area) on the disk to determine a defective sector.

With respect to the limitation of claims 23 and 24. The use of a PDL or SDL is inherently present in an optical disk recording. The allocation of defective sectors is register within the PDL or SDL in order to be skipped.

With respect to the limitation of claims 25-28, the examiner interprets any data such as pre-test data is "old" data recorded in order to determine a defective sector. Such limitation is explained in column 8 lines 36-50.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 9, 10, 12-18, 21 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (6788630) in view of Ohara et al (6097683).

The following interpretation is given to the claimed invention. The independent claims are broadly cited that read on the following:

- 1). The independent claims read on forming the Primary Defective List on the disk (PDL) wherein the disk is accessed before recording data in order to determine if any defects exist on the disk sectors. If a defect is found, then the sector is marked as defective and an alternative sector is assigned to record data.
- 2). The independent claims read on forming the Secondary Defective List (SDL) wherein prior to data being recorded on the disk (temporary defected dust, smudges, fingerprints) is examined, and if a defect is found, then it is registered in a SDL and an alternative sector is assigned to record the data.

- 3). The claim read on defrag or de-fragging wherein errors is detected prior to data recording then allocates a new area for recording the data.
- 4). The independent claims read on pre-test recording data on the disk to determine a defective sectors prior to data recording.

The following interpretation is given in making the rejection. The claims read on determining defects (prior to recording new data) on disk sector to be recorded then data is written to allocated sector if defect is found. Thus sectors to be recorded is verified for errors prior to data recording.

. The primary reference shows the use of an optical disk wherein previously recorded data is verified for errors and if the errors exist, then data is recorded on another area o the disk (see column 11 lines 18-41). However the reference does not explicitly disclose the reading of "accessed" sectors prior to recording of new data. The secondary reference discloses determining a defective area on a disk to be recorded prior to or while data is being recorded on the disk (see the abstract and column 2 lines 64-68) for the purpose of preventing data recording on a defective sectors on the disk.

It would have been obvious to one skilled in the art at the time the invention was made to use the teachings of the secondary reference and modify the primary reference. Such modification of determining defective sectors prior to recording of new data is merely within the engineering capability of one skilled in the art in order to save time in determining defective sectors by reading "old" data as opposed to recording then reading the new data. Thus one of ordinary skill in the art would have been motivated to

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use the teachings of the secondary reference for the purpose of time efficiency in detecting defective sectors.

With respect to the limitation of claim 3-see column 11 lines 15-20.

With respect to the limitations of claims 4 and 16-see column 11 lines 23 and 24.

With respect to the limitations of claims 5 and 17-see column 11 lines 30-35.

With respect to the limitations of claims 6 and 18-see column 11 lines 40 and 41.

With respect to the limitation of claim 9, the claim read on the "skipping method".

With respect to the limitation of claims 10. The use of front end or back end is merely a processor as shown in fig 11.

With respect to the limitation of claim 13. The reference is drawn to an optical disk recording apparatus.

With respect to the limitations of claims 13,14, 21. The use of front end and back end processors are well established in the art as shown in figs 1 and 11.

With respect to the limitations of claims 23 and 24. The reference shows the re-recording of data onto another area of the disk as cited in column 11 line 38.

With respect to the limitations of claims 25-28. The use of "test data" is merely any data.

The reference shows the use of verifying the previously written data on the disk as cited in column 11 lines 15-20.


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Claims 7, 8, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the cited prior art discloses the decreasing of the data spine operation every time the data is selectively read for verification.

Applicant's arguments with respect to claims 1, 3-6, 9, 10, 12-18, 21 and 23-28 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to NABIL Z. HINDI at telephone number (571) 272-7618.


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7/23/06